

## § 45.63

(5) Provide fore and aft access between detached trunks and superstructures by permanent gangways;

(6) Be at least 60 percent of the breadth of the ship in way of the trunk; and

(7) Be at least 0.6  $L$  in length, if no superstructure, is provided.

### § 45.63 Correction for sheer.

(a) The minimum summer freeboard must be increased by the deficiency, or

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may be decreased by the excess as limited by § 45.65, of sheer calculated from table 4, multiplied by:

$$0.75 - (S/2L)$$

where  $S$  is the total length of enclosed superstructures. Trunks are not included.

### § 45.65 Excess sheer limitations.

The decrease in freeboard allowed in § 45.63 is limited as follows:

SHEER CALCULATION—TABLE 4

Station	Actual ordinate	S. M.	Product
After Half:			
AP .....	.....	1	.....
L/6-AP .....	.....	3	.....
L/3-AP .....	.....	3	.....
Midship .....	.....	1	.....
Sum of Aft Products			
After Standard Sheer .2665L+26.65 <sup>1</sup> .....	.....	.....	.....
Difference: Sum-STD .....	.....	.....	+Excess/– Deficiency
AFT Sheer: Diff+8 .....	.....	.....	Excess/Deficiency
Fwd. Half:			
FP .....	.....	1	.....
L/6-FP .....	.....	3	.....
L/3-FP .....	.....	3	.....
Midships .....	.....	1	.....
Sum of Fwd Products			
Fwd Standard Sheer .5330L+53.30 <sup>1</sup> .....	.....	.....	.....
Difference: Sum-STD .....	.....	.....	+Excess/– Deficiency
FWD Sheer: Diff+8 .....	.....	.....	Excess/Deficiency

<sup>1</sup>  $L$  in Standard Sheer= $L$  or 500 whichever is less.

#### Sheer Summation

Aft Sheer±	.....
Fwd Sheer±	.....
Net Sheer±	.....
Mean: Net–2	..... Excess/Deficiency

(a) In vessels having no enclosed superstructure from 0.1  $L$  abaft amidships to 0.1  $L$  forward of amidships, no decrease is allowed.

(b) In vessels having enclosed superstructures amidships less than 0.1  $L$  before and abaft amidships, the decrease must be reduced by linear interpolation.

(c) If excess sheer exists in the forward half, and the after half is at least 75 percent of standard sheer, the full decrease is allowed. If the after sheer is between 50 percent and 75 percent of standard sheer an intermediate decrease, determined by linear interpolation, is allowed for the excess sheer forward. If the after sheer is 50 percent of

standard or less, no decrease is allowed for the excess sheer forward.

(d) Where an enclosed poop or fore-castle is of standard height with greater sheer than that of the freeboard deck, or is greater than standard height, an addition to the sheer of the freeboard deck may be made using the following formula:

$$S = vL'/3L$$

Where

$s$ =sheer credit, to be deducted from the deficiency or added to the excess of sheer.

$v$ =difference between actual and standard height of superstructure at the end ordinate.

$L'$ =mean enclosed length of poop or fore-castle up to a maximum length of 0.5  $L$ .